STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
P.O. BOX 30028
LANSING, MI 48909

DAVID F. HALES, Director

November 30, 1989

Dear Concerned Citizen:

On October 23, 1989, a public meeting was held at the Highland Township Hall in Highland, Michigan, to describe the Remedial Investigation/Feasibility Study (RI/FS) taking place at HiMill Manufacturing Company. My records indicate you attended this meeting. During this "kick-off" meeting, a number of questions were asked, and issues were raised which I could not answer or address at that time. This letter will, hopefully, provide some answers and/or current information regarding those issues. I am sending this to all the attendees who signed our sign-in sheet and provided addresses.

Chronology of Compliance Actions:

You asked me to research Michigan Department of Natural Resources (MDNR) files and determine what took place through the early 1980's between MDNR and HiMill Manufacturing, with respect to environmental issues. I have spent quite some time going through the files, which is why this letter did not go out sooner. What follows is a summary of the key dates and a brief summary of events from 1972 to the mid 1980's.

The earliest date of documents I found in the HiMill file is 1972. The MDNR first inspected the HiMill facility after the State received an anonymous letter from some company employees who were concerned about releases from the facility.

During the initial plant inspection, a number of samples were collected, including samples from a seepage lagoon into which HiMill discharged waste process water from their manufacturing facility. During this initial investigation it was observed that the water in a marsh in the Highland Recreation Area adjacent to the lagoon had apparently been impacted by the lagoon. Analysis of the samples confirmed that metals found in the lagoon were also found in the swamp. The company was discharging process waters to the groundwaters of the state without the required groundwater discharge permit.

There were no file entries for the years 1973 and 1974.

HiMill applied for a groundwater permit in 1975 to discharge their process waters to a clay-lined evaporation lagoon. A State of Michigan, Water Resources Commission Permit was issued to HiMill on October 31, 1975. This permit contained effluent limitations and monitoring requirements for HiMill's discharge to their evaporation lagoon. Second, the company was required to monitor the swamp area located in the Highland Recreation Area which had been impacted by the lagoon. Third, the permit stipulated that, effective July 1, 1977, the effluent limitations for the company's discharge to the evaporation lagoon would be reduced five fold. The constituents with specified limitations were filterable copper, nitrate as Nitrogen and pH; and, after July 1, 1977, filterable Aluminum. The permit had an expiration date of November 1, 1980.

A June 1976, letter to HiMill from a Water Quality Division staff person noted that his plant inspection during May had revealed that HiMill utilized a chromic acid bath that was not included in their groundwater discharge permit application. He further noted that copper solution was still being discharged to the lagoon rather than being retained. HiMill was asked to submit more information on these processes and to propose a means of removal of copper and chrome if the levels being discharged warranted removal. In other words, it appeared to the inspector that the current practices by HiMill would result in the company exceeding their permit limit for copper; and since the company was discharging wastewater containing chromium, it would be necessary to amend their permit to reflect this and an acceptable limit would be stipulated for chromium.

In 1976 HiMill enlarged their present lagoon and added a second smaller lagoon which was supposed to prevent overflow to the marsh in the recreation area. This action was taken without the required prior review and approval by MDNR. In December 1976, MDNR staff observed the lagoons overflowing into the marsh. MDNR informed the company, in a December 1976 letter, that they were in violation of their permit. HiMill was further advised in this letter that analytical results from samples collected in 1976 indicated concentrations of metals in their wastewater that were consistently above what would be acceptable for a surface water discharge. MDNR initiated enforcement efforts by requesting that the company prepare and present a definitive program for correction of the problems associated with their wastewater treatment facilities.

A meeting was held in January 1977, to discuss the conditions at the plant and how to resolve the problems. It was decided that rather than issue a Notice of Violation or take formal enforcement action, the problems would be corrected by putting the facility under the National Pollutant Discharge Elimination System (NPDES) program. MDNR formally notified the company to apply for an NPDES Permit. HiMill subsequently applied for a permit and the process continued through the public comment period for the issuance of a permit which would authorize the discharge of <u>treated</u> process waste to the

lagoon for the duration of the permit and would also authorize the discharge to the surface waters after January 1, 1979, when a treatment facility would come on line.

The NPDES Permit was never issued because U.S. EPA and MDNR did not concur on whether or not the discharge should be designated as a "new" discharge. U.S. EPA determined that the discharge should be designated a "new" discharge and this required that the discharge must comply with additional discharge conditions which the proposed treatment process apparently would not meet.

As a result of this action, HiMill and MDNR held a meeting in December 1977, and it was agreed that HiMill would implement a total recycle system for their process water by no later than March 1978. In the interim, they could continue to discharge treated process wastes in accordance with the terms and conditions specified in their State of Michigan Permit that had been issued in October 1975.

From this time until January 1980, when the process water recycle system became operational, there was continuing communication between the company and MDNR staff. The recycle system took much longer to construct and become operational than was initially proposed. In addition, during this time, additional incidences of lagoon overflows were observed. Also during this time period, samples were collected from the Highland Recreation Area, by MDNR staff, in an effort to assess the impact HiMill's waste lagoon overflows had on the adjacent marsh. Both the water and sediments in the marsh had elevated levels of metals, thus demonstrating that the lagoons had degraded the quality of the marsh. Because of the above circumstances, MDNR required HiMill to submit monthly progress reports describing what actions they had taken each month toward completing the water recycle process, and reporting the results of their regular monitoring.

A limited hydrogeological study of the vicinity of HiMill Manufacturing was performed by MDNR in May 1981, and the final report was issued in August 1982. The results of the sampling and analyses indicated that copper, aluminum, chromium and zinc are leaving the HiMill plant site in the groundwater and are flowing into the adjacent Highland Recreation Area.

In the second half of 1983, HiMill began exploring the regulatory process for filling their lagoons. In a September 1983, letter, MDNR advised them that they would have to arrange for a licensed company to analyze the lagoon sludge, remove, and properly dispose of it. MDNR also requested that HiMill permit an MDNR staff person to observe the sludge removal. The company was further advised at this time that MDNR felt additional study into the extent of any groundwater contamination was appropriate. Finally, this letter advised HiMill that after the MDNR inspected the sludge removal, the company could fill in the lagoon but that they must be aware that should further

studies show that additional contamination exists, the Department may require them to "re-excavate" it.

In September 1983, MDNR staff from the Air Quality Division observed that HiMill was attempting to dewater their sludge lagoons by pumping the water to roof-mounted sprayers and spray-evaporating it. This activity was illegal and subsequently discontinued. This activity may have resulted in the spreading of metals over a wide area behind the HiMill plant.

Excavation of the sludge from the large lagoon was accomplished in November and December of 1983.

In a January 1984 letter, MDNR advised HiMill that the results of the most recent samples collected from the shallow monitoring wells indicated unacceptable levels of some metals. The letter further advised that additional samples would be collected in the spring. Depending upon the results of that sampling, additional analyses of groundwater may be required of the company. MDNR also advised the company that, if a continual source of contamination became apparent, more extensive studies and possibly cleanup actions would be required. In addition, monitoring of the discharge point of the runoff from the roof would be continued. Finally, the company was informed that consideration was being given to conducting a limited study of the effects of past lagoon overflows on Waterbury Lake, and advised that such a study could result in further recommendations for remedial action.

In April 1984, MDNR Surface Water Quality Division staff of the Water Quality Surveillance Section surveyed Waterbury Lake and the marsh east of HiMill to determine the impact, if any, of HiMill discharges on these water bodies. The study found that the marsh waters and sediments contained elevated levels of metals. Their data indicated that Waterbury Lake had not been impacted, yet, by surface discharges from HiMill. They recommended that sources of heavy metals entering the marsh from the HiMill parking lot and roof drainage system be minimized; that the existing lagoon be filled; and that a determination be made as to whether the contaminated groundwater should be purged.

This briefly summarizes the MDNR/HiMill history according to MDNR files for the years 1972 through mid 1984.

Act 307 Scoring:

Another question that was raised during the October 23, meeting was regarding the scoring of HiMill for placement on the State's Act 307 List. Public Act 307 of 1982, as amended, is the Michigan Environmental Response Act and is known as the State of Michigan's "Superfund" Program. Sites of environmental contamination are prioritized by "scoring" them utilizing a model that assigns a numerical score for a number of environmental conditions of concern. The scores are totaled and the sites are placed on the 307 list by numerical order.

The HiMill 307 file indicates that HiMill Manufacturing was scored in 1983, 1984, and again in 1988. In 1983, the score HiMill received was 608. In 1984, the score was incorrectly lowered to 178 because the lagoon had been removed. However, the staff person who scored the site failed to take into account two important factors. One, he decreased the score for the category of chemical hazard because the lagoon had been removed. What he failed to consider was that considerable chemical contamination remains in the area as a result of the frequent lagoon overflows. Therefore, the score should not have been lowered as dramatically as it was for chemical hazard. Second, another category in the model is for "release potential." This was, again, much too low for the condition of the waste at the time of disposal and release. In 1988, the site was scored for a third time. This time the existing conditions were accurately scored and the score came out 784. The reason the score in 1988 is higher than in 1983 is because the 1984 errors were corrected and in both of the previous scorings no direct contact potential was taken into account. However, since contamination is documented in the recreation area, the potential for direct contact with the contaminants exists and must be considered in the site score. It is my understanding that contaminants identified for the scoring of HiMill are Aluminum, Zinc, Chromium and Copper. The contamination by trichloroethylene or TCE of the company water wells was not used for the scoring. This would have resulted in the score being higher still.

If you have additional questions regarding the scoring of the HiMill Manufacturing Company, I encourage you to contact Mr. Ron Willson, Unit Chief, Act 307 Section, Environmental Response Division, P.O. Box 30028, Lansing, Michigan 48909. His phone number is 517-373-4800.

Superfund Scoring:

Also, related to this topic is the scoring for placement of a site on the Federal National Priorities List (NPL) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or "Superfund" List. HiMill was scored using the federal scoring model and received a score of 49.5, which is considered a high score for a site. If a site of environmental contamination receives a score of 28.5 or higher, it is eligible for inclusion on the NPL. The most significant reasons HiMill scored high using this model are that there is observed groundwater contamination from the site; that there is no municipal water supply available; and the toxicity of the heavy metals is high. Apparently, no score was added for surface water impact or the score may have gone higher. MDNR, apparently at the request of HiMill, rescored the site because it was believed that the population at risk was initially placed at a higher number than was accurate. As a result of the rescoring, the score dropped to 34.3. This score is still clearly sufficient for inclusion on the Superfund List.

One final general observation regarding the placement of sites on the 307 List versus the National Priorities List: All sites with environmental contamination discovered through the Act 307 process are automatically reviewed using federal Superfund criteria. Sites with significant contamination, and with a high probability of qualifying for inclusion on the NPL due to their high risk, as reflected by their hazard ranking score and 307 score, are referred to the NPL process.

Residential Well Sampling:

An area of major concern during the public meeting was regarding the quality of the water in area citizens' private water wells. A number of citizens attending the meeting were interested in having their wells sampled to assure that their water supply was safe. As I advised you at this meeting, the agency which regulates drinking water supply in Michigan is the Michigan Department of Public Health (MDPH), Division of Water Supply. Prior to the meeting, I contacted Ms. Lois Elliott Graham, R.S., in the Ground Water Quality Control Section of the Division of Water Supply, to discuss the possibility of having some of the residential wells in the area sampled. She advised me that the MDPH laboratory was currently operating at reduced capacity for groundwater contamination investigations and they could not accommodate all requests for residential well sample analysis that they receive. Some wells in this area had been sampled in 1988, and the analytical results had shown no contamination. Since no additional data is yet available to more definitively delineate the direction of groundwater flow from this site, and the 1988 water samples showed no contamination, MDPH felt it was appropriate to wait for this groundwater flow data to become available before determining what additional work is necessary in the area. In addition, since laboratory limitations exist, they must prioritize sampling episodes, and at that time they could not justify moving resampling of this area ahead of other projects.

At the public meeting, after lengthy discussion about this issue, I agreed to collect the names and addresses of those people in attendance who requested some follow-up from the MDPH regarding this issue and to pass the list on to MDPH. I contacted who will be handling this case, briefed her on the meeting, and provided her with the list of citizens wishing more information on residential well sampling. At that time, the status of the MDPH laboratory remained unchanged. However, on November 3, 1989, r phoned me and advised me that she had managed to obtain limited space in the laboratory for some sample analyses. She had obtained samples from seven residential wells along the west side of Waterbury Road earlier that week to have analyzed for metals and some volatile organic compounds. These locations represent the homes closest to HiMill, which would logically be the first wells impacted if groundwater is moving in this direction and contaminants had moved this far. advised that if anything of concern was detected in these samples, she would extend the scope of the sampling. She hopes to have the analytical results in late December. This information should help ease some of the concerns raised during our meeting.

One meeting attendee had some specific questions about the Old Marlowe Dump. I have referred these questions to Mr. David Rymph in the Northville office, Environmental Response Division for follow-up.

I believe this information addresses the issues raised at the October 23, 1989, meeting. If you have any additional questions regarding anything in this letter, or any other issue pertaining to HiMill, please feel free to call me at the number below. If you have questions regarding the status of the RI/FS, you may also contact Ms. Mary Elaine Gustafson of the U.S. EPA in Chicago, at 312-886-6144.

Sincerely,

Deborah D. Larsen

Deborah D. Larsen
Project Manager
Superfund Section
ENVIRONMENTAL RESPONSE DIVISION
517-373-4825

cc: Governor's Washington D.C. Office
DNR Legislative Liaison
Mr. Dipo Oyinsan/Mr. David Rymph,
Northville District Office